Technical Data Sheet

BioDuro PLA

Essential series

BioDuro PLA is a robust biomaterial made for professionals and hobbyists alike. It is designed to have much greater flexibility and toughness while retaining mechanical strength and is capable of being printed at high speeds. This material is also FDA approved for food contact, industrial compostable and formulated to be UV resistant. BioDuro PLA is available in 8 colours. Filament should be stored into their original sealed package at room temperature (15-30°C) and dry environment. Following this storage recommendation, the filament will have a minimum shelf life of 12 months.

General

Availability
- North America
- Latin America

Applications
- Functional Parts
- Home Décor
- Prototyping
- Household Goods

Mechanical Properties	Value	Test Method
Tensile Strength	50 MPa	ASTM D638
Elongation at Break	>15%	ASTM D638
Flexural Strength	88 MPa	ASTM D790
Flexural Modulus	2900 MPa	ASTM D790
Notched Izod Impact (J/m)	TBD	ASTM D256
HDT/B	55	ASTM D648

Samples printed with the following parameters: 100% infill; rectilinear; 2 shells. Conditioned under ambient conditions for 24 hours prior to testing.

Physical Properties	Value	Test Method
Glass Transition Temperature	60°C	ASTM D3418
Melt Flow Rate (210°C)	8g/10min	ASTM 1238
Melt Temperature	155°C	ASTM D3418
Specify Gravity	1.24	ASTM D792

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Parameter	Recommended Setting
Nozzle Temperature	200-240˚C
Bed Temperature	25-60˚C
Bed Adhesive	None
Print Speed	>80mm/s
Cooling	0-100%
Layer Height	≥0.1mm
Nozzle Diameter	≥0.2mm

To ensure optimal material properties the material should always be kept dry. Drying recommendations: 60°C /140°F in a hot air dryer or vacuum oven for 4 to 16 hours.

Disclaimer

The data presented in this document are based on our current knowledge and experience and is intended solely for information and comparison purposes only. Product specifications are subject to change without notice. They should not be used for project specifications or its quality evaluation. The material's actual properties depend on the printing process conditions, the design structure, test conditions, etc.

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